

An Environmental Resource sponsored by HQ Air Force Center for Environmental Excellence

### Geostatistical Long-Term Monitoring Optimization Algorithm

AFCEE developed a temporal and spatial algorithm for optimizing Long Term Monitoring (LTM) networks using geostatistical methods. This algorithm, known as GTS, can be used to cost-effectively manage both sampling of monitoring networks and those that monitor performance or effectiveness of remedial systems. It was developed to ensure that only necessary monitoring data are captured and analyzed to support decisions crucial to monitoring programs.

For an Air Force-wide monitoring program, cost savings could reach tens of millions of dollars. Typical Air Force installations and Department of Energy industrial facilities have reduced their sampling budgets by 30-40% by using optimization techniques.

Tinker AFB applied the GTS algorithm to optimize the monitoring program including approximately 1200 monitoring wells at the base. Tinker AFB manages one of the largest sampling programs in the Air Force inventory. Preliminary results from the optimization study identified approximately 300 wells as redundant, meaning those wells could be removed from the monitoring program without significant loss of information. The cost benefit analysis determined that optimizing the long term monitoring network at Tinker AFB could potentially save over \$800,000 per year.

There are four files pertaining to this tool available for download. They can be found at the following web links or by visiting this page on the AFCEE website at <a href="http://www.hqafcee.brooks.af.mil/products/rpo/default.asp#LTM">http://www.hqafcee.brooks.af.mil/products/rpo/default.asp#LTM</a>.:

- 1) Overview (7 KB PDF file)
- 2) <u>Software and Manual</u> (6.5 MB self-extracting zip file),
- 3) Algorithm Part 1 (1.52 MB PDF file) Part 2 (918 KB PDF file) | Part 3 (1.5 MB PDF file), and
- 4) <u>Detailed discussion</u> (41 KB PDF file).

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For additional information, contact Mr. Phil Hunter, HQ AFCEE/BCE at DSN 240-5281 or Commercial (210) 536-5281.

### **Regulatory Update**

#### **MEK Removed from EPCRA TRI List**

The American Chemical Council long claimed that absorption of Methyl Ethyl Ketyone (MEK) (also known as 2-butanone – C<sub>4</sub>H<sub>8</sub>O) into the body does not cause deleterious effects. They had previously petitioned the EPA to delist MEK, however, the request was not honored. The American Chemical Council took their case to the Appeals Court for the District of Columbia Circuit, which was heard on February 18, 2005. The Court decided to strike the common solvent from the list of compounds subject to toxic release inventory (TRI) emissions reporting under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). The decision was released on May 10, 2005 and issued on June 13, 2005.

TRI Form R reports for 2004 are not required to include MEK. If you included MEK in your 2004 report, you do NOT have to re-submit or file an amendment. EPA will automatically exclude MEK from all 2004 TRI reports.

For further reference, the "Decision of the United States Court of Appeals for the District of Columbia Circuit - #04-5189 American Chemical Council vs. Steven L. Johnson, Acting Administrator, US Environmental Protection Agency" may be found at <a href="http://pacer.cadc.uscourts.gov/docs/common/opinions/200505/04-5189a.pdf">http://pacer.cadc.uscourts.gov/docs/common/opinions/200505/04-5189a.pdf</a>. You may also contact PROACT for a copy of this decision.

## **Simplified EPA TRI Reporting Requirements**

To improve reporting efficiency and effectiveness, reduce burden, and promote data reliability and consistency across Agency programs, EPA is simplifying the Toxics Release Inventory (TRI) reporting requirements. TRI reporting is required by section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and section 6607 of the Pollution Prevention Act (PPA). This change simplifies the TRI reporting requirements by removing some data elements from the Form R and Form A Certification Statement that can be obtained from other EPA information collection databases, streamlining other TRI data elements through range codes and a reduced number of reporting codes, and eliminating a few data elements from the Form R. This rule also makes two technical corrections to the regulations to provide corrected contact information and to remove an outdated description of a pollution prevention data element.

This revision is effective on September 12, 2005. The first reports with the revised reporting requirements will be due on or before July 1, 2006, for reporting year (i.e., calendar year) 2005.

This document applies to facilities that submit annual reports under section 313 EPCRA. It specifically applies to those who submit the TRI Form R or Form A. (See <a href="http://epa.gov/tri/report/index.htm#forms">http://epa.gov/tri/report/index.htm#forms</a> for detailed information about EPA's TRI reporting forms.)

For a copy of the Final Regulation see Federal Register: July 12, 2005 (Volume 70, Number 132) or contact PROACT.

#### Revised DoD ESOH Directive

On March 19, 2005, Paul Wolfowitz, former Deputy Defense Secretary, signed DoD Directive 4715.1E, Environmental Safety and Occupational Health (ESOH). The purpose of this directive is to reissue and establish policies on ESOH to sustain and improve the DoD mission and to authorize the Armed Forces Pest Management Board (AFPMB).

Statements of policy include:

- Manage and apply the DoD installation assets to sustain the DoD national defense mission.
- Use DoD Installations Strategic Plan vision, mission and goals in ESOH decision-making.
- Use ESOH management systems in mission planning and execution across all military operations and activities, including acquisition, procurement, logistics, and facility management.
- Ensure all organizations plan, program and budget to manage ESOH risks.
- Evaluate all activities for current and emerging ESOH resource requirements and make prudent investments in initiatives that support mission accomplishment, enhance readiness, reduce future funding needs, prevent pollution, prevent illness and injury, ensure cost-effective compliance, and maximize the existing resource capability.
- Ensure, through a host-tenant agreement or otherwise, that all DoD tenants and non-DoD tenants comply with all applicable laws and DoD policies relating to ESOH requirements. For overseas installations, commanders shall implement this policy to the extent possible under stationing and international agreements.
- Protect DoD personnel from accidental death, injury, or occupational illness.
- Protect the public from risk of death, injury, illness, or property damage because of DoD activities.
- Establish and maintain open and productive ESOH dialogue with Federal, State, Indian tribal, local government, public and private organizations, foreign governments and relevant international organizations.

To obtain a copy of DoD Directive 4715.1E, Environmental Safety and Occupational Health, visit the Defense Technical Information Center (DTIC) website at

http://www.dtic.mil/whs/directives/corres/html/47151e.htm or contact PROACT.

# "In Our Customer's Own Words"...

"Great service! Thank you for the superb response."

Albert Fernandez Schreiver AFB, CO

> "Your staff member was a big help with the regulatory interpretation I requested, and went the extra mile by providing me with further documents which added to the value of the information. Many thanks!"

> > Pat Tilson Moody AFB, GA

#### **CROSSTALK**

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Correspondence should be addressed to PROACT's editorial office at 314 E. Commerce Street, Suite 200, San Antonio, TX 78205; DSN 240-4215, (800) 233-4356, or proact@brooks.af.mil.

#### The AFCEE Team

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#### **Editorial Staff**

Program Manager Dr. Samuel Brock

Project Manager *Phil Martin* 

Environmental Scientist Michael Castaneda

Graphics *Connie Martinez* 

Researchers
Carl M. Lehman
Pamela McCarthy
Richard Howell, Jr.
Gregory Hines